(54) Title: METHOD AND APPARATUS FOR VISUALIZING A SEQUENCE OF VOLUME IMAGES
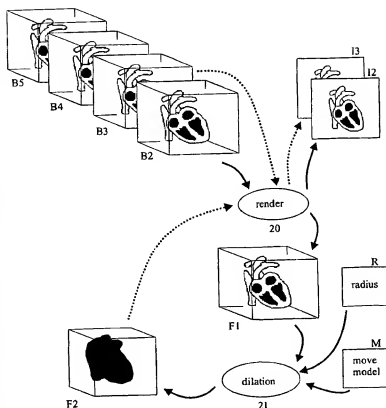
(57) Abstract: The invention relates to a method and to an apparatus for visualizing a sequence of volume images of a moving object. Methods and apparatus of this kind are used in cases where a sequence of three-dimensional volume images is to be rendered as a two-dimensional image, for example, for a viewer. The invention utilizes the fact that usually only the volume values of a part of the voxels are relevant for the derivation of a two-dimensional image from a volume image. In the case of a sequence of volume images of a moving object, the derivations of the two dimensional images can be accelerated by storing the voxels which are relevant for the visualization during the visualization of a first volume image and by deriving the relevant two-dimensional image during the visualization of a second volume image exclusively from the volume values of the stored voxels and from voxels neighboring such stored voxels. The selection of volume values of neighboring voxels for use is dependent on the motion of the object. The voxels of the second volume image which are relevant for the visualization are stored again and used accordingly for the visualization of a third volume image. These steps are repeated accordingly for further volume images of the sequence.

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